**Worm Experiments**

1. What happens when two worms are placed in the same area? Will they move together or stay apart?

Place two worms in a container with a cover to block out the light. The worms should move towards each other. Have students discuss reasons the worms might move towards each other. Possible ideas might include that the worms are seeking moisture or they are looking for companionship.

**2.** What is the average length of a red worm?

Place a worm on a damp paper towel, straighten out the worm, and measure it with a ruler. Have students measure a number of worms and calculate the average length. Students should note the accuracy of measurement should increase by measuring a larger number of worms versus only a few.

For younger students, have them measure “gummy” worms to gain experience with measuring and recording data. Variables affecting the length of a worm include how old it is, how well fed it is and if its body has enough moisture.

3. Does a worm move forwards, backwards, or both?

Place a worm on a moist paper towel. Using something soft such as a paint brush or leaf touch the end of the worm. The worm will move both forwards and backwards. Worms move through contracting and relaxing their muscles in waves, alternating between circular and long muscles. Contraction of the circular muscles forces the worm’s body forward. Then, the long muscles contract, drawing the tail end of the worm towards the skinny front end. When the long muscles contract, the circular muscles relax, causing the worm to become thick. To keep from skidding during movement, tiny bristles called setae act as brakes to hold part of the worm’s body against the surface. The worm moves forward and backward in similar ways.

4. Can a worm feel?

Place a worm on a moist paper towel. Using a feather and then a leaf, touch

the worm and observe its reaction. The worm will respond to touch. This experiment demonstrates that worms have senses. Students may garner respect for these creatures rather than squishing them on the playground or tossing them in the air.

5. Does a worm sense light? Do worms have eyes?

Darken the room and ask a student to shine a beam from a flashlight covered

with red cellophane on a worm. Since worms, like many nocturnal animals, are not sensitive to light from the red end of the spectrum, the worm will probably not react to the light. When the cellophane is removed, the worm will react to the light by turning away. Have students repeat the experiment with a number of worms and record their findings in their Learning Journals. As a variation, set up the experiment with the worm in a dish that is partially covered so the worm has a dark place to retreat to.

6. Does a worm like water?

On a piece of paper place a drop of water. Place a worm near the water drop. The worm should crawl to the water. Students could also do the experiment in a box to block out the light.